

**ABSTRACT**

5 A method, apparatus (22), and program are provided for  
determining an amount of bandwidth available in at  
least a portion of at least one communication path (5,  
3, 6, 7, 10-1, 9, 12, 13, 14, 24a, 24b) coupling a  
plurality of nodes (1, 15, 22) together. The  
communication path (5, 3, 6, 7, 10-1, 9, 12, 13, 14,  
10 24a, 24b) is exercised using information signals, to  
determine the amount of time it takes for at least one  
of those information signals to traverse the  
communication path (5, 3, 6, 7, 10-1, 9, 12, 13, 14,  
24a, 24b) in at least one direction, and the amount of  
15 bandwidth available in at least a portion of the  
communication path (5, 3, 6, 7, 10-1, 9, 12, 13, 14,  
24a, 24b) is determined, based on the amount of time  
determined in the exercising step. In accordance with  
another embodiment of the invention, the bandwidth  
20 available in both uplink and download directions of  
the communication path is determined by transferring a  
file between a test node (22) and a user communication  
terminal 1, by way of the communication path, and a  
router (15).